

TECHNICAL INFORMATION
AND
SERVICE DATA

 **RADIOOLA**

MODEL 524-M

**FIVE VALVE, BROADCAST, A.C. OPERATED.
SUPERHETERODYNE**

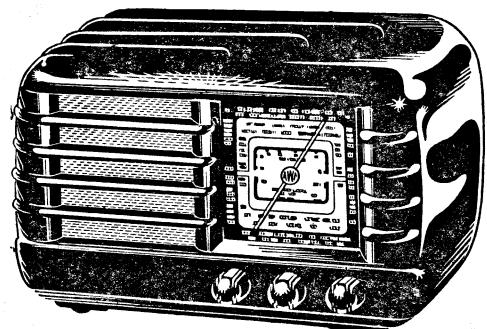
AND

MODEL 525-M

**FIVE VALVE, TWO BAND, A.C. OPERATED
SUPERHETERODYNE**

ISSUED BY

AMALGAMATED WIRELESS (A/SIA) LTD.



ELECTRICAL SPECIFICATIONS.

FREQUENCY RANGE: **Model 524-M** 540-1600 Kc/s
(555-187.5M)

Model 525-M 540-1600 Kc/s
(555-187.5M)
6-18 Mc/s
(50-16M)

INTERMEDIATE FREQUENCY 455 Kc/s

POWER SUPPLY RATING 200-260 volts,
50-60 C.P.S.

(Models are produced with other voltage and
frequency ratings.)

POWER CONSUMPTION 60 watts

VALVE COMPLEMENT

Model 524-M	(1) 6A8G	Converter
	(2) 6SK7GT	I.F. Amplifier
	(3) 6SQ7GT	Det., A.V.C. A.F. Amp.
	(4) 6V6GT/G	Output
	(5) 6X5GT	Rectifier
Model 525-M	(1) 6J8GA	Converter
	(2) 6SK7GT	I.F. Amplifier
	(3) 6SQ7GT	Det., A.V.C. A.F. Amp.
	(4) 6V6GT/G	Output
	(5) 6X5GT	Rectifier

LOUDSPEAKER:

5 inch—Code No. AA16
Transformer XA2
V.C. Impedance—3 ohms at 400 C.P.S.
Field—1000 ohms.

UNDISTORTED POWER OUTPUT: 3 watts

GENERAL DESCRIPTION.

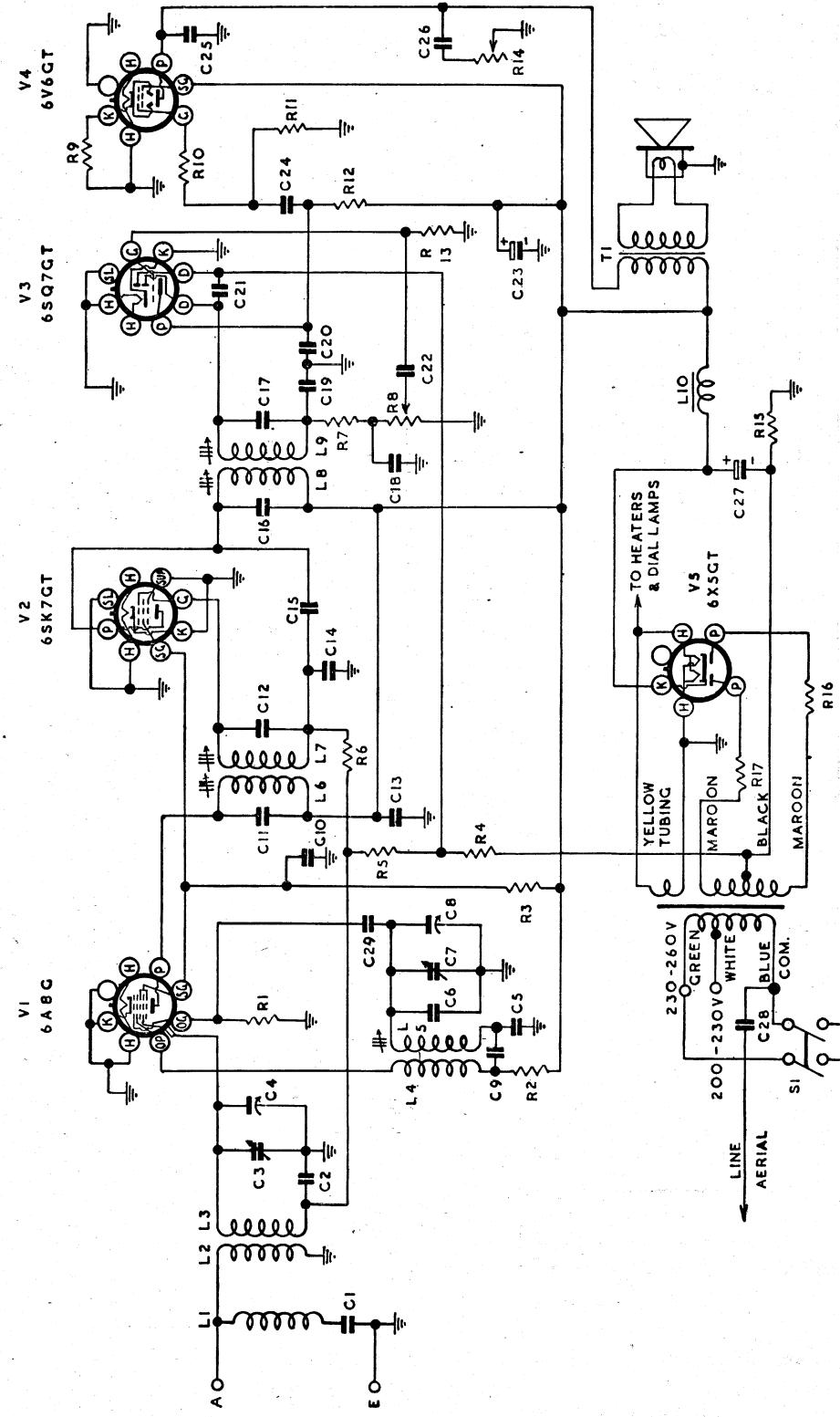
The models 524-M and 525-M are mantel models housed in attractively designed moulded cabinets, which are produced in three colours: Ivory, Walnut and Burgundy.

Features of design include: Tropic-proof construction, automatic volume control, magnetite cores in I.F. transformers and broadcast oscillator coils, air-dielectric trimming capacitors.

Electrically, model 524-M closely resembles the models

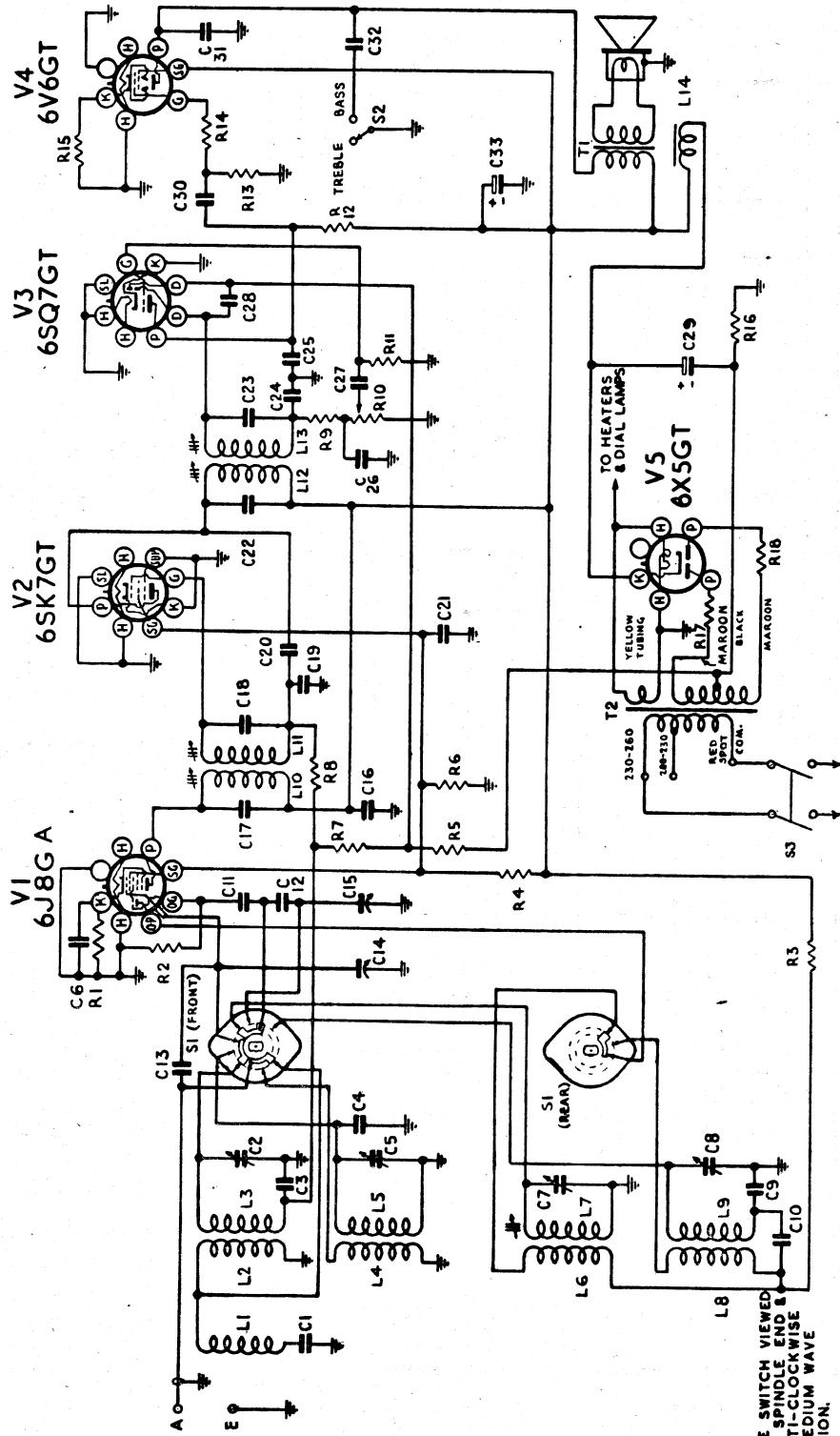
512-M/519-M, differences being in the addition of a power switch on the volume control (R8) and a capacity to mains aerial. (See circuit diagram and code.) For all other information, refer to the 512-M/519-M Service Manual.

Model 525-M is the same as model 518-M, except that the power switch is situated on the volume control (R10). Refer to the model 510-M Service Manual for all other information.



CIRCUIT CODE — RADIOLA 524-M.

Code No.	Description	Part No.	Description	Part No.
INDUCTORS				
L1	I.F. Filter (including C1)	9382	R9	325 ohms, 3 watt
L2	Aerial Coil, 540-1600 Kc/s.	15454	R10	50,000 ohms, $\frac{1}{2}$ watt
L3	Oscillator Coil, 540-1600 Kc/s	7638A	R11	0.5 megohm, $\frac{1}{2}$ watt
L4		22700	R12	0.25 megohm, 1 watt
L5		22700	R13	0.1 megohm, 1 watt
L6	1st I.F. Transformer	21917	C13	0.1 megohm—Tone Control
L7	2nd I.F. Transformer	21917	C14	0.05 UF Paper, 200 v. working
L8		21917	C15	9 uuf Mica
L9		21917	C16	70 uuf Mica
L10	Speaker Field, 1000 ohms	21917	C17	70 uuf Mica
		21917	C18	100 uuf Mica
		21917	C19	100 uuf Mica
		21917	C20	200 uuf Mica
		21917	C21	50 uuf Mica
		21917	C22	0.01 UF Paper, 600 v. working
		21917	C23	16 uF 525 P.V. Electrolytic
		21917	C24	0.02 UF Paper, 600 v. working
RESISTORS				
R1	50,000 ohms, $\frac{1}{2}$ watt	19659	X2	Transformer 50-60 C.P.S.
R2	20,000 ohms, 2 watt	18201	C26	0.03 UF Paper, 600 v. working
R3	25,000 ohms, 2 watt	18201	C27	8 uF 525 P.V. Electrolytic
R4	2.5 megohms, $\frac{1}{2}$ watt	12-430	C28	500X uuf Mica (2000 v. test)
R5	1.6 megohms, $\frac{1}{2}$ watt	12-430	C29	70 uuf Mica
R6	0.1 megohm, $\frac{1}{2}$ watt			
R7	50,000 ohms, $\frac{1}{2}$ watt			
R8	0.5 megohm—Volume Control (including S1)	23480		
CAPACITORS				
C1	50 uuf Silvered Mica	19659	X2	Transformer 50-60 C.P.S.
C2	.05 uF Paper, 200 v. working	18201	C26	0.03 UF Paper, 600 v. working
C3	3.25 uuf Air Trimmer	18201	C27	8 uF 525 P.V. Electrolytic
C4	12-430 uuf Air Trimmer		C28	500X uuf Mica (2000 v. test)
C5	420 uuf Mica $\pm 2\frac{1}{2}\%$ padder		C29	70 uuf Mica
C6	9 uuf Mica			
C7	3.25 uuf Air Trimmer	19659		
TRANSFORMERS				
T1	Loudspeaker Transformer	18201	X2	Transformer 50-60 C.P.S.
T2	Power Transformer 40 C.P.S.	18201	C26	0.03 UF Paper, 600 v. working
T2	Power Transformer 40 C.P.S.	18201	C27	8 uF 525 P.V. Electrolytic
S1	Power Switch (on R8)	18201	C28	500X uuf Mica (2000 v. test)
	LOUDSPEAKER	18201	C29	70 uuf Mica
	SWITCH			
	5 inch Electro Magnet			



CIRCUIT CODE — MODEL 525-M.

Code No.	Description	Part No.	Code No.	Description	Part No.	
INDUCTORS			INDUCTORS			
L1	I.F. Filter (including C1)	9382	R9	50,000 ohms, $\frac{1}{2}$ watt	C7	3-25 uF Air Trimmer
L2, L3	Aerial Coil, 540-600 Kc/s	15454	R10	0.5 megohm—Volume Control (including S3)	C8	3-25 uF Air Trimmer
L4, L5	Aerial Coil, 6-18 Mc/s	15456	R11	10 megohms, 1 watt	C9	4000 uF Mica Padder
L6, L7	Oscillator Coil, 540-1600 Kc/s	9206A	R12	0.25 megohm, 1 watt	C10	.05 uF Paper, 400 v. working
L8, L9	Oscillator Coil, 6-18 Mc/s	15458	R13	0.5 megohm, $\frac{1}{2}$ watt	C11	70 uF Mica
L10, L11	1st I.F. Transformer	22700	R14	50,000 ohms, $\frac{1}{2}$ watt	C12	470 uF Mica Padder
L12, L13	2nd I.F. Transformer	22703	R15	325 ohms, 3 watt	C13	4 uF Mica
L14	Speaker Field, 1000 ohms	R16	R16	50 ohms, $\frac{1}{2}$ watt	C14	12-430 uF Tuning
		R17	R17	100 ohms, $\frac{1}{2}$ watt	C15	.1 uF Paper, 400 v. working
		R18	R18	100 ohms, $\frac{1}{2}$ watt	C16	.05 uF Paper, 200 v. working
CAPACITORS			CAPACITORS			
C1	50 uF Silvered Mica	C20	9 uF Mica	C20	100 uF Mica	
C2	3-25 uF Air Trimmer	C21	.1 uF Paper, 400 v. working	C21	.01 uF Paper, 600 v. working	
C3	.05 uF Paper, 200 v. working	C22	70 uF Mica	C22	50 uF Mica	
C4	9 uF Mica	C23	70 uF Mica	C23	.02 uF Paper, 600 v. working	
C5	3-25 uF Air Trimmer	C24	100 uF Mica	C24	.01 uF Paper, 600 v. working	
C6	0.1 uF Paper, 200 v. working	C25	200 uF Mica	C25	.03 uF Paper, 600 v. working	
					16 uF 525 P.V. Electrolytic	
					1785B Power Transformer; 40 C.P.S.	
					1786B LOUDSPEAKER	
					AA16 5 inch Electro Magnet	
					SWITCHES 20156 Range Switch	
					22775 Tone Switch	
					S1 Power Switch (on R10)	
					S2	
					S3	

SOCKET VOLTAGES — MODEL 524-M.

Valve	Cathode to Chassis Volts	Screen Grid to Chassis Volts	Anode to Chassis Volts	Anode Current mA	Heater Volts
6A8G Converter	0	90	240	5.0	6.3
Oscillator	—	—	170	3.5	—
6SK7GT I.F. Amp.	0	90	240	8.0	6.3
6SQ7GT Det., A.V.C. A.F. Amp.	0	—	90*	0.6	6.3
6V6GT/G Output	13	240	225	35.0	6.3
6X5GT Rectifier	300	—	280 (A.C.)	—	6.3

Total H.T. Current—60 mA.

Volts across back-bias resistor R15—3.0

Measured at 240 volts A.C. supply. No signal input.

Volume/Power Control maximum clockwise. Voltmeter 1000 ohms per volt; measurements taken on highest scale giving accurate readable deflection.

*This reading may vary depending on the resistance of the voltmeter used.

SOCKET VOLTAGES — MODEL 525-M.

Valve	Cathode to Chassis Volts	Screen Grid to Chassis Volts	Anode to Chassis Volts	Anode Current mA	Heater Volts
6J8GA Converter M.W.	1.5	80	240	1.0	6.3
S.W.	2.0	80	240	1.3	—
Oscillator M.W.	—	—	115	5.0	—
S.W.	—	—	115	5.0	—
6SK7GT I.F. Amp.	0	80	240	6.0	6.3
6SQ7GT Det., A.V.C. A.F. Amp.	0	—	90*	0.6	6.3
6V6GT/G Output	13	240	225	35.0	6.3
6X5GT Rectifier	300	—	280 (A.C.)	—	6.3

Volts across back-bias resistor R16—3.0

Total H.T. Current—60 mA.

Measured at 240 volts A.C. supply. No signal input.

Volume/Power Control maximum clockwise. Voltmeter 1000 ohms per volt; measurements taken on highest scale giving accurate readable deflection.

*This reading may vary depending on the resistance of the voltmeter used.